

ABSTRACT

An armature for an electromotive device having a unitary coil and armature is disclosed. The armature may include a coil having inner and outer winding portions separated by an insulator, each of the winding portions comprising a plurality of sheet metal conductors, and a commutator having a plurality of sheet metal commutator segments each being integrally formed with one of the conductors. In one embodiment of the armature, the commutator may have a smaller outside diameter than the outside diameter of the coil. In the same or different embodiment of the armature, the commutator segments may have a width greater than the width of the conductors. The armature may be fabricated from a pair of conductive sheets by forming in each of the conductive sheets a plurality of conductive bands each having first and second conductor portions, shaping the conductive sheets into inner and outer cylinders, positioning the inner cylindrical conductive sheet inside the outer cylindrical conductive sheet, forming a coil from the first conductor portions of the inner and outer cylindrical conductive sheets, and forming a commutator from the second conductor portions of the inner and outer cylindrical conductive sheets.